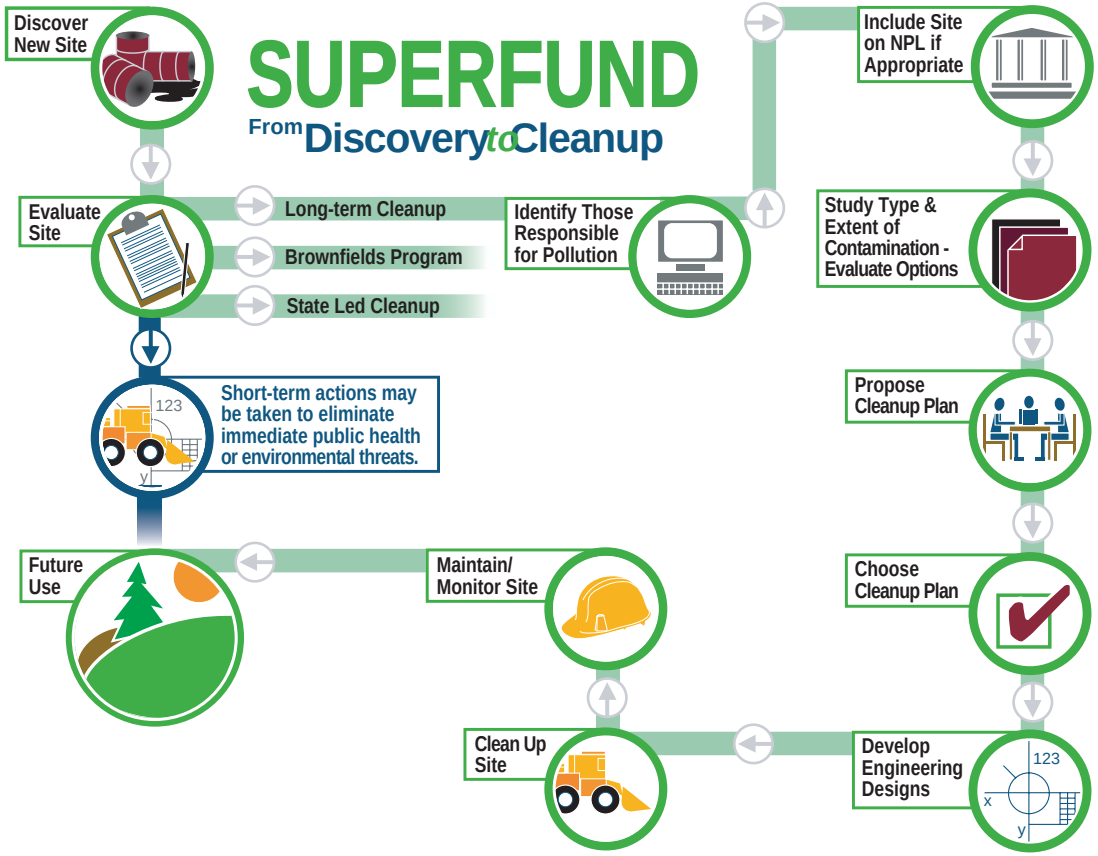
BACKGROUND

SUPERFUND: A BRIEF BACKGROUND

In response to growing concerns at Love Canal in New York and other sites around the country, Congress passed the Comprehensive Environmental Response, Compensation, and Recovery Act (CERCLA), the Superfund law, on December 11, 1980. In order to implement CERCLA, EPA created a regulatory structure to establish cleanup standards and procedures. These procedures were outlined in the National Contingency Plan (NCP). The NCP is the primary regulation dictating CERCLA response actions. The NCP sets forth procedures to be followed by EPA and private parties in selecting and conducting emergency removals and long-term cleanup actions.

There are several tools available through the Superfund program to assess and clean up hazardous waste sites. The graphic below shows the cleanup process from discovery to cleanup. A site may take many paths to cleanup, either via state sponsored cleanup programs, via the brownfields program, or via a Superfund short-term ("removal") or long-term ("remedial") cleanup action.

Today's Superfund program is the result of ongoing reform and revitalization. EPA is working continuously to streamline the program and optimize fairness, enhance cleanup effectiveness and consistency, increase community participation and public/private partnerships, and encourage economic development.



Discover Contamination (Site Discovery)

Anyone can report the discovery of a hazardous waste problem, including local and state agencies, businesses, the U.S. Coast Guard, concerned citizens, or EPA. Potential hazardous waste sites should be reported to the National Response Center Hotline (available 24 hours a day, seven days a week) or to state and local authorities.

To report an oil spill or other environmental emergency such as a chemical release, call the National Response Center at 1-800-424-8802.

Evaluate the Site (Site Assessment)

The top priority in evaluating a hazardous waste site is to determine whether or not an emergency exists. When a hazardous waste site is reported, EPA coordinates with the state to inspect the site to determine what type of "action" or cleanup procedure, if any, is necessary. EPA reviews existing data, inspects the site, and may interview nearby residents to find out the history and the effects of the site on the population and the environment.

EPA New England has a number of sites for which site assessments have been performed, but a decision whether to list the site on the National Priorities List (NPL) has not been made. These sites are referred to as Sites Awaiting an NPL Decision (SAND). SAND sites include sites that have been assessed by the Superfund program, are now being addressed under state program authorities, or are in various stages of assessment and cleanup by other federal or state agencies. For additional information, visit the EPA New England Superfund SAND web pages at www.epa.gov/ne/superfund/sand

EPA tests the soil, water, and air to determine what hazardous substances were left at the site and how serious the risks may be to human health and the environment. Individuals or companies responsible for the contamination at the site may conduct these assessments under close EPA supervision. Many of the sites that are studied do not need cleanup by the Superfund program.
Some sites do not require any action, while others are referred to the state, other EPA programs such as the Brownfields program, or other agencies or individuals for cleanup. If the site qualifies for cleanup through the Superfund program, EPA then decides whether the site is a short-term ("removal") cleanup or a long-term ("remedial") cleanup.

Brownfields

Some hazardous waste sites, such as abandoned, idled, or under-used industrial and commercial facilities, may be slightly contaminated and can be cleaned up fairly easily. These sites, where expansion or redevelopment is complicated by real or perceived environmental contamination, are commonly known as "brownfields." More information about brownfields in New England can be found in the Brownfields sections of this report and on the EPA New England Brownfields program Web site at www.epa.gov/ne/brownfields.

Short-Term Cleanups

Short-term cleanups, also referred to as "removal actions," address immediate threats to public health and the environment, and typically address less complex or less extensive contamination problems than those which require a long-term cleanup. Short-term cleanups may take anywhere from a few days to a few years to complete, depending on the type and extent of contamination. EPA and the state also determine if additional long-term action will be necessary.

Not all short-term cleanups are equally urgent. For example, situations involving fire or explosions or imminent, catastrophic contamination of a reservoir may require prompt attention, while certain situations involving abandoned hazardous waste drums or cleanup of abandoned industrial facilities may not.

Steps in the short-term cleanup process include:

1. Investigate the contamination at the site.

2. Assess factors that affect the level of risk at the site and determine the urgency of the situation, which is the primary factor used to determine which type of short-term cleanup to conduct. There are three different types of short-term cleanups:

Classic Emergencies
include those cleanups where the release of hazardous materials requires that on-site cleanup activities be initiated within minutes or hours of determining that a short-term cleanup is appropriate.

Time-Critical Actions
are those cleanups where, based on an evaluation of the site, EPA determines that on-site cleanup activities must be initiated within six months of determining that a short-term cleanup is appropriate. For time-critical actions, EPA conducts an investigation of the contamination and produces an "action memorandum" authorizing and outlining the cleanup process before beginning work.

Non-Time-Critical Actions
are those cleanups where, based on an evaluation of the site, EPA determines that six months or more is available before on-site cleanup activities must begin. Non-time-critical removal actions require the preparation of an "Engineering Evaluation/Cost Analysis" (EE/CA). An EE/CA includes a description of the contamination, the threat to human health and the environment that the contamination poses, the objectives of the cleanup, the requirements that need to be met, the alternatives evaluated for addressing the contamination, and a recommended cleanup plan.

3. Conduct the cleanup and document its completion.

For information on short-term cleanups in New England and EPA New England's Emergency Planning and Response programs, see The Removal sections of this report.

Long-Term Cleanups

Short-term cleanups can correct many hazardous waste problems and eliminate most threats to human health and the environment. Some sites, however, require lengthier cleanups. These may include restoring groundwater and taking measures to protect wetlands, estuaries, and other ecological resources. These sites are often caused by years of pollution and may take several years, even decades, to clean. At any point during the long-term cleanup process, interim short-term cleanups may be conducted. Detailed information on long-term cleanups in New England is contained in the Remedial sections of this report. Following is an explanation of the steps in the long-term cleanup process:

1. Identify Those Responsible For Pollution (Begin Enforcement Process)

Throughout the cleanup process, EPA works to identify companies or individuals who may have caused or contributed to the pollution at the site. These companies and individuals are known as Potentially Responsible Parties (PRPs). After completing a search to identify PRPs, EPA's first choice is for the PRPs to pay for and/or conduct the necessary studies and cleanup activities under the supervision of EPA. If the PRPs are unable or unwilling to do the work, EPA will fund the cleanup through the Superfund. EPA and the Department of Justice will then take appropriate enforcement actions to recover all the government's costs for cleaning up the site.

2. If Appropriate, Include the Site On the National Priorities List

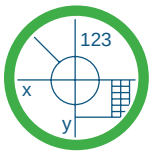
In most cases, sites that are candidates for long-term cleanup become listed on the National Priorities List. To evaluate the dangers posed by hazardous waste sites, EPA has developed a scoring system called the Hazard Ranking System (HRS). EPA uses the information collected during the assessment phase of the process to score sites according to the danger they may pose to public health and the environment. Sites that score high enough on the Hazard Ranking System are eligible for the National Priorities List. A site may also be proposed for the National Priorities List if the Agency for Toxic Substances and Disease Registry (ATSDR) finds that it poses a significant risk to public health or if the site is chosen as a state's top priority site. The proposal is published in the Federal Register and the public has an opportunity to comment in writing on whether the site should be included on the National Priorities List. Brief summaries for New England sites are contained in this report. Detailed fact sheets and other site information are also available on the internet, at www.epa.gov/ne/superfund/sites.

3. Study Type and Extent of Contamination and Evaluate Cleanup Options (Remedial Investigation/Feasibility Study)

A detailed study of the site is done to identify the cause and extent of contamination at the site, the possible threats to the environment and the people nearby, and options for cleaning up the site.

4. Propose a Cleanup Plan and Respond To Public Comments
EPA uses information from the EPA Remedial Investigation/Feasibility Study (RI/FS) to develop and present a proposed plan for long-term cleanup to citizens, and to local and state officials for comment. The proposed plan describes the various cleanup options under consideration and identifies the option EPA prefers. The community has at least 30 days to comment on the proposed plan. EPA also invites community members to a public meeting to express their views and discuss the plan with EPA and state officials.

5. Choose Cleanup Plan (Record of Decision)
Once the public's concerns are addressed, EPA publishes a Record of Decision, which describes how the Agency plans to clean up the site. EPA will also notify the community of the cleanup decision.



6. Develop Engineering Designs For Cleanup (Remedial Design)
Next, the cleanup method is designed to address the unique conditions at the site where it will be used. This is called the Remedial Design. The design and actual cleanup is conducted by EPA, the state, or by the parties responsible for the contamination at the site. EPA closely oversees this design phase of the cleanup at the site. When the design is completed, EPA informs the community of the design and the next steps that will take place at the site.

7. Clean up the Site (Remedial Action)
The cleanup process itself involves the removal, treatment, and/or disposal of contaminants at a site, and then the restoration of the site to a condition that is not dangerous to people or the environment. This step may involve different cleanup methods, such as the construction of a plant to treat contaminated groundwater, or the excavation and treatment of contaminated soil.

8. Maintain and Monitor the Site (Operations and Maintenance)

EPA can put in place equipment and manpower necessary to clean up a site, but it may take a long time to return a site to the way it was before it was contaminated (as in the case of long-term treatment of contaminated groundwater). Some sites, due to the extent of contamination, may never return to the way they were prior to the pollution; however, EPA will make sure that the site will be safe for the people living around the site now and in the future. EPA regularly monitors sites to make sure they remain safe. If there is any indication that a problem has arisen, immediate action will be taken to make the site safe again. Sites that meet all federal cleanup standards are deleted from the National Priorities List.